

REMARKS

**Status of Claims:**

Claims 4 and 9-14 have been cancelled. Thus, claims 1-3, and 5-8 remain for examination.

**Prior Art Rejections:**

Claims 1, 3, 5-9, 11, 12 and 14 stand rejected under 35 U.S.C. § 102 as anticipated by Kaharu. Further, claims 2, 4, 10 and 13 stand rejected under 35 U.S.C. § 103 as obvious over Kaharu.

The examiner's rejections are respectfully traversed.

Applicant has amended claim 1 to more clearly distinguish applicant's invention in view of the prior art. Claim 1 now recites:

1. An optical transmission system, comprising an optical communication apparatus, a communicating party of said optical communication apparatus, and a monitor for performing monitoring of optical signals transmitted and received between said optical communication apparatus and said communicating party;

wherein said optical communication apparatus comprises:

an optical branching transmitting device for branching optical signals to be transmitted to said communicating party into first optical signals and second optical signals;

a first transmit interface coupled to receive said first optical signals from said optical branching transmitting device, said first transmit interface connected to only to a single optical cable for transmitting said first optical signals to said communicating party;

a second transmit interface coupled to receive said second optical signals from said optical branching transmitting device and for transmitting said second optical signals to said monitor;

a receive interface coupled to receive optical signals from said communicating party and providing received optical signals;

an optical branching receiving device connected to said receive interface for receiving said received optical signals and for branching said received optical signals into third and fourth optical signals;

additional circuitry of said optical communicating apparatus connected to receive said third optical signals from said optical branching receiving device;

a third transmit interface connected to receive said fourth optical signals from said optical branching receiving device and for transmitting said fourth optical signals to said monitor;

wherein said monitor performs monitoring of data contents of said second and fourth optical signals.

The underlined portions of the above claim 1 help to focus the examiner's attention on portions of applicant's amended claim 1 which serve to provide detailed structure of applicant's embodiment as illustrated in applicant's Fig. 1. The structural recitations of applicant's invention are now set forth in detail and serve to distinguish applicant's invention from the prior art.

In particular, the optical branching transmitting device corresponds to the optical fiber coupler 42, and this coupler splits the signal to be transmitted into two parts, identified as the first and second optical signals in amended claim 1. The first optical signals are fed to a first transmit interface which corresponds to transmit IF 23 in applicant's Fig. 1. The second optical signals are fed to a second transmit interface corresponding to transmit IF 27 in Fig. 1. The output of the second transmit interface is in turn connected to the monitor.

The first transmit interface (transmit IF 23) is connected to only a single optical cable for transmitting the first optical signals to the communication party. Note in contrast, the not only does Kaharu lack the structure arrangement and interconnections now recited in applicant's amended claims, but Kaharu fails to show only a single optical cable connected for transmitting to the communication party. Indeed, an essential structural configuration of Kaharu is the use of two transmitters T1 and T2 for feeding the transmitted output signal to each of optical cables L1 and L2. The couples are arranged on each cable L1 and L2 and are positioned downstream of these transmitters whereas applicant's are arranged upstream of the

transmitters on the transmission side. Further, Kaharu's optical couplers send a portion of each signal back to the receiver for comparison of the results to determine if any errors have occurred in the transmission paths. Applicant's structural arrangement is easily differentiated from the teachings of Kaharu.

On the receiving side, applicant's recited receive interface corresponds to receive IF 24. The optical branching receiving device corresponds to optical coupler 43 which is seen to be connected to receive the output of the receive IF and which splits the received signals to provide third and fourth optical signals. The third optical signals are fed to additional circuitry (elements 21, 22 and 20) within the optical communication apparatus, and the fourth optical signals are fed to a third transmit interface which corresponds to transmit IF 28. These output of the fourth optical signals are in turn fed to the monitor through the third transmit interface.

Again, it may be seen that the specifically recited structure and the interconnections of elements as now recited in applicant's amended claim 1 readily distinguishes applicant's invention from the prior art. This structure and connectivness are not disclosed in Kaharu or are they made obvious thereby.

In order for a reference to be utilized as an anticipatory reference under the provisions of 35 U.S.C. § 102, the reference must disclose each and every claim limitation. This is certainly not the case here, and thus the Sec. 102 rejection must be withdrawn. Further, as to claim 2 (claims 4, 10 and 13 have been cancelled), is thus submitted that the PTO has not made out a *prima facie* case of obviousness under the provisions of 35 U.S.C. § 103, and thus applicants claims are patentable over the prior art.

Applicant's sole remaining independent claim 6 has been amended in a similar manner as claim 1 but is recited in method format. This claim, and claims dependent therefrom are likewise deemed patentable.

It is submitted that applicant's dependent claims are patentable at least by virtue of their dependency on patentable independent claims.

**Conclusions:**

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date March 29, 2005

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